

REMARKS

Favorable consideration of this Application as presently amended and in light of the following discussion is respectfully requested.

Claims 8-12 and 19-22 are pending in the present Application. Claims 1-7 and 13-18 have been canceled. Claims 8, 10, 12, and 19-22 have been amended. Support for the amendment of Claims 8, 10, 12, and 19-22 can be found in the specification and claims, as originally filed. No new matter is added.

By way of summary, the Official Action presents the following issues: Claims 8-12 and 19-22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; Claims 8-12 and 19-22 stand rejected under 35 U.S.C. § 102 as being unpatentable over Kim (U.S. Patent No. 5,627,935) in view of Oeda et al., (U.S. Patent No. 6,125,427, hereinafter Oeda);

REJECTION UNDER 35 U.S.C. § 112

Claims 8-12 and 19-22 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection.

The Official Action states that it is “unclear what the ECC data structure is and how it is different from an ECC block.” Applicant respectfully directs the Examiner’s attention to Figs. 6-8, as well as the corresponding description at pages 13-23 of the Applicant’s specification, which clearly shows that the ECC blocks are **a component of the ECC data structure**. Applicant notes in the prior art a single ECC block typically comprises an ECC data structure.

In this regard, Claim 8 has been amended to clarify that the ECC blocks together form an ECC data structure.

With respect to subheading (b) of paragraph 5 of the Official Action, Applicant is unclear as to the meaning of this portion of the rejection. As stated above, the ECC data structure includes ECC blocks as component elements, no essential elements are missing from the claims.

Accordingly, Applicant respectfully requests that the rejection of Claims 8-12 and 19-22 under 35 U.S.C. § 112, second paragraph, be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 8-12 and 19-22 under 35 U.S.C. § 103 as being unpatentable over Kim in view of Oeda;

The Official Action cites Kim as teaching all of the Applicant's claim limitations with the exception of independently coded ECC blocks. The Official Action cites Oeda as disclosing this more detailed aspect of the Applicant's claims and states it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references to arrive at the Applicant's claims. Applicants respectfully traverses the rejection.

Amended Claim 8 recites, *inter alia*, an optical disc including:

- . . . a first error correction code (ECC) block including at least a user data and control information disposed therein;
- a second ECC block including at least an ID information of a physical sector of the first ECC block disposed, the first and second ECC blocks are error correction coded independently;
- wherein the first and second ECC blocks are of the same ECC data structure, and are expressed on the disc in a same physical data cluster, and accessed from the optical disc by a reproducing device employing the first and second ECC blocks of the physical data cluster to correct errors encountered in accessing data from the disc.

Kim describes a digital video cassette coding format in which trick-play data is excluded from outer error-correction coding, but includes inner error correction coding in a

two-dimensional Reed-Solomon error correction coding format.¹ Referring to Fig. 2, an ECC block is shown having multiple data sync blocks of a video portion of a signal. The ECC block includes inner-parity and outer-parity, as well as a trick-play data region.

Oeda describes a magnetic disc control apparatus. The control apparatus provides a data format, in which 2-bit parallel recording is performed, as shown in Fig. 4.² As shown in Fig. 4, a CRC (46), or cyclical redundancy check, is included in the data structure along with an error detecting code.³

Conversely, in an exemplary embodiment of the Applicant's invention, ECC blocks are independently error correction coded, and ID information used for addressing physical sectors of one ECC block is coded in a separate ECC block. Thus, the ID information may be positioned at the head of each physical sector in a same physical data cluster. In other words, since the ECC blocks of the same ECC data structure are independent of each other, the logical sector can be composed without concern of the ID information being displaced by the use of a LDC. As Kim describes a single ECC block in Fig. 2, Kim does not disclose or suggest Applicant's ECC data structure. Nor does Kim disclose or suggest an ECC block containing an ID information and expressed on a disc in a same physical data cluster as a second ECC block. As can be appreciated, Oeda does not satisfy the deficiency of Kim. Accordingly, neither Kim, alone, or in combination with Oeda, disclose or suggest Applicants' amended Claim 8 or any claim depending therefrom.

Further, with respect to dependent Claim 9, the Official Action cites Oeda, Fig. 4, element 55, column 5, lines 50-57; column 6, lines 14-25, column 8, lines 47-55; column 9,

¹ Kim at Abstract.

² Oeda at column 7, lines 59-64.

³ Oeda at column 7, line 65 through column 8, line 9.

lines 25-33, as disclosing an error correcting code having a long distance code in one direction and user data arranged in a same direction.

Applicant notes that the portion of the specification relied upon in the Official Action is completely devoid of any such description. The portions of the specification cited above seem to correspond to an EDC, not an LDC arranged in one direction and user data being arranged in a same direction. Accordingly, in addition to the reasons above, Applicant respectfully submits that Claim 9 is also patently distinguished over the cited references.⁴

Furthermore, Applicant notes that Claims 20-22 recite a more detailed aspect of the invention. In the outstanding Official Action, Kim is cited as teaching this more detailed aspect of the Applicant's invention.⁵

Upon reviewing the cited portions of Kim, Applicant notes that the only discussion found relates to traditional ECC decoding and synchronization schemes. There is no disclosure or suggestion of using ID information of one ECC block to synchronize an address physical sectors corresponding to a further ECC block of a same physical data cluster. Accordingly, in addition to the reasons above, Applicant respectfully submits that Claims 20-22 also patently distinguish over the cited references.

As Claims 10-12 and 19-22 recite substantially similar limitations as discussed above in independent, and/or dependent form, Applicant respectfully submits that these claims are likewise allowable, at least for the reasons discussed above.

Accordingly, Applicant respectfully requests that the rejection of Claims 8-12 and 19-22 under 35 U.S.C. § 103 be withdrawn.

⁴ Applicant notes that this point was emphasized in the previous response of June 15, 2005, and no rebuttal was provided in the Official Action of July 12, 2005.

⁵ See Official Action of July 12, 2005 at page 5, citing column 6, lines 1-9; column 14, lines 15-55; column 13, lines 35-45; column 6, lines 19-39; column 12, line 65 – column 13, line 15.

CONCLUSION.

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present Application, including Claims 8-12 and 19-22, is patently distinguished over the prior art, statutory, definite, and in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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